

IX. *Note on "A Catalogue of the described Diurnal Lepidoptera of Australia, by Mr. George Masters, of the Sydney Museum."* By W. H. MISKIN.

[Read 1st December, 1873.]

THE following remarks are suggested by the appearance of "A Catalogue of the described Diurnal *Lepidoptera* of Australia, by Mr. Geo. Masters, of the Sydney Museum."

Mr. Masters, in his prefatory remarks, admits that his Catalogue is chiefly compiled from Kirby's Catalogue of Diurnal *Lepidoptera*; to me the Catalogue appears, with one or two exceptions, simply an extract from that well-known work, and is certainly far, very far, from being what it purports to be, *i. e.*, a correct or complete list of the described butterflies of Australia; to my mind it displays an amount of ignorance of the subject upon which the author treats that surprises me, considering the facilities which I should imagine he possessed of obtaining information on the matter, and which I should have supposed he would have availed himself of before publishing his Catalogue.

I take the liberty of offering some observations upon the synonymy adopted in several cases where it appears to me errors exist, and of also adding the names of many species which are known to me as undoubtedly Australian, and of some other reputed ones which are totally omitted by Mr. Masters in his Catalogue; in doing so I have not scrupled in some cases, and with all deference, to differ from the opinions of other authorities besides Mr. Masters in the synonymy of some of our species. I only regret that the very limited opportunities of consulting authoritative works on the subject prevent my bringing to bear a deeper and more thorough knowledge of a matter in which I feel a very great deal of interest.

The arrangement of the genera adopted by Mr. Masters is a puzzle to me; I cannot understand upon what principle or rule he prefers in some cases names (restored by

Mr. Kirby, amidst much opposition, in place of familiar, well-established ones) such as *Eurema*, *Hypolimnas*, *Cupido*, &c., while in other cases, disregarding Kirby's stern law of priority, he abandons *Catopsilia* for *Calidryas*, and altogether ignores such genera as *Tachyris*, *Delias*, *Hypocysta*, &c. In several cases I think Mr. Masters might, with advantage, have added the synonyms of many of his genera.

In the arrangement of the families, I am with Mr. Masters for adhering to the old system of commencing with the *Papilionidæ*, and also concur in his view of the distinction of the genus *Ornithoptera*. With regard to the species of the last-named genus, our three best known, viz., *Pronomus*, *Cassandra*, and *Richmondia*, are, as he says, quite sufficiently distinguished by constancy, both of markings and locality, to entitle them to be considered separate species.

In the genus *Papilio*, Mr. Masters omits a well-authenticated Cape York species, viz. :—

Ægistus (Lin.).—This insect I have in my own collection from that locality, and know of several other specimens from the same place.

I have also to add—

Ormenus (Guér.).—Two specimens I know to have been taken at Cape York, one of which is in my own collection.

Erectheus.—Donovan described the ♂ under this name and the ♀ as *Ægeus*. Kirby gives precedence to the latter name, probably according to the order in Donovan's work; the former is, however, the name most generally adopted.

Erithonius (Cram.).—Our insect described under the name of *Sthenelus* by Macleay is constant in the distinguishing peculiarity pointed out by that gentleman as separating it from the Indian form, which it closely resembles, viz., in the large discoidal spot on the anterior wing never being divided; it is therefore, I think, entitled to be considered a variety of this species.

Ilioneus (Don.).—This name must be abandoned, having been adopted for a N. American insect (Smith & Abbott, Lep. Ins. Georgia, i. t. 2, 1797), and Felder's name, *Amphiaraus*, substituted.

Lycaon (Westw.) is undoubtedly but a variety of *Eurypylus* (Lin.); it differs but little, if at all, from the

Indian form, with which I have compared specimens; our species is a somewhat variable insect.

Mr. Masters is doubtless correct in sinking the name *Scottianus* (Feld.), considering it a synonym of *Macleanus*.

Xuthus (Lin.).—I think this insect must be permitted to remain on the list of Australian butterflies, however improbable the chances of its having been taken in Australia may appear. In the Cat. Pap. B. Museum a specimen contained in the national collection is authoritatively announced as from Port Essington.

Dissimilis (Lin.).—This is another species given as Australian in the Cat. Pap. B. M. p. 71, of which Mr. Masters makes no mention. Whether it is a reliable Australian species or not I am unable to say, but, like many others reputed as Australian, of which perhaps casual or accidental specimens only have been taken, or others which have been caught elsewhere and described as Australian in error—of which cases have occurred—they must remain, at any rate provisionally, in the list of Australian insects until more reliable and authentic information concerning them can be procured.

In the subfamily *Pierinæ* Mr. Masters ignores the genera *Tachyris* (Wall.) and *Delias* (Hüb.), without giving any reason; why, I cannot understand, as these genera appear quite sufficiently distinguished by the difference in the neuration of wings.

In the genus *Terias*, Mr. Masters includes *Hecabe* (Lin.) and *Sari* (Horsf.) as distinct species; there can be no doubt that the latter is the Australian form of *Hecabe*, and differs very little, if at all, from that well-known insect.

Two species in this subfamily quoted by Kirby appear to have been overlooked by Mr. Masters, viz.—

Delias fragalactea (Butl.), (Thyc. F.), Ann. Nat. Hist. ser. iv. vol. iv. p. 243 (1869).

Pieris javæ (Sparrm.).—(Pap. J.), Amœn. Acad. vii. p. 504, note 1 (1767). The ♀ appears to have been described by Donovan, under the name of *Pap. deiopœia*, in his Ins. N. Holland, t. 21, f. 2 (1805).

Fam. DANAIDÆ.

Genus DANAIS (Latr.).

Mr. Masters expresses surprise that in Kirby's work *D. affinis* is treated, as he says, as a synonym or var. of

D. Plexippus; it is true that *affinis* is quoted as a var. of this latter species, but Mr. Masters appears not to have observed that in the appendix to Kirby's work the error is rectified.

Mr. Masters is wrong in making *Chrysippus* and *Petilia* distinct species; they are one and the same. *Petilia* (Stoll.), the Australian form of this world-wide species, differs but little from its congeners of other countries, but appears to me to assimilate more closely to the African form, with which it agrees in the almost total absence of the row of marginal white spots on the posterior wing; this characteristic seems most prominent in the Mauritius form, where we see the white spots distinctly and perfectly developed.

Our insect, described by Macleay under the name of *Hamata*, is sufficiently constant in its smaller size and slight difference of markings to be retained as a variety of the Indian insect it so nearly approaches, but it appears to me, on comparison, to resemble more closely Cramer's *Melissa*, than *Limniace*.

In the genus *Euplœa* Mr. Masters is again abroad: *Angasii* (Feld.) and *Corinna* (Macl.), given by him as distinct species, are both undoubted synonyms of *E. Sylvester* (Fab.).

E. Hyems (Butl.) gives precedence to Felder's name, *Arisbe*, the latter having priority of date.* See App. Kirby's Cat.

Acrœa Theodote (Wallen).—I think Mr. Masters is right in his remarks respecting this insect; it is certainly a mythical species.

Cethosia.—Another species should be added, viz., *Cyane* (Dru.), var. *Penthesilea* (Cram.), upon the authority of Mr. Macleay (King's Surv. Aust. p. 463).

Messaras.—I think our species is *Madestes* (Hew.), not *Maonites*.

Pyrameis Cardui.—Our form is sufficiently distinct from the European to be at any rate considered a var.; I think, therefore, that Prof. M'Coy's name of *Kershawii* should hold good.

Diadema.—There are undoubtedly but two Australian species, both perfectly distinct: the one, *Alimena* (Lin.), varying but little in its individuals, if at all, and confined to the northern parts of the colony; the other varying in the ♀ only (of which there are three tolerably constant

* An. and Mag. 4th Ser. vol. viii. p. 290. See remarks by Mr. Butler in above respecting the dates of publication of the "Voyage of the Novara."—ED.

forms), but being in both sexes always constant in the markings on the under side ; whether *Bolina* or *Lasinassa* as a specific name should have the preference for this latter species I confess I am unable to say. *Misippus* seems now to be applied to the African species, wherein the ♀ mimics *D. Chrysippus* ; this form never occurs in Australia, and both sexes appear to me to present points clearly distinguishable from the Australian species.

Charaxes (Oct.)—This generic name is made by Mr. Kirby in his appendix to take precedence of *Nymphalis*.

Mynes.—As I have endeavoured to show in some former remarks, our species is identical with *Geoffroyi* of Guérin, and not distinct, as Mr. Wallace supposes.

Mr. Masters omits *Prothoe* (Hüb.), *Australis* (Guér.) (*Mynes Leucis* of Boisd.), quoted as Australian, from Port Denison. See Proc. Ent. Soc. N. S. iv. p. 58.

To the genus *Lycæna* (Fab.), or, as Mr. Masters has it, *Cupido*, I have to add the following, omitted by Mr. Masters :—

Boetica (Lin.).

Cassius (Cram.).

Pavana (Horsf.).

Palmyra (Feld.).

All of these have been determined by Mr. Hewitson.

Salamandri (Macl.) is a synonym of *Taygetus* (Feld.) ; the latter name takes precedence.

Hypolycæna (Feld.), *Phorbas* (Fab.) (♀ *H. Dictæa*, Feld.), with which Mr. Masters seems unacquainted, is a tolerably common insect from Rockhampton northwards.

Sithon (Hüb.), *Phocides* (Fab.), var. *Sugriva* (Horsf.), is also a well-known Cape York species.

Amblypodia—*Centaurus* (Fab.)—is wrong : this is not Australian ; the common species, abundant from Port Denison to Cape York, is figured by Hewitson, in the B. M. Cat., *Lycænidæ*—the ♂, at t. 4, f. 29, 30, 31, under the name of *Adatha* (a synonym of *Micale*, Blanch.), and the ♀, at t. ii. f. 7, 8, 9, described at p. 4 under name of *Amytis*. The name *Micale* (Blanch.) has therefore, I presume, priority.

Amongst the *Hesperidæ* I observe the following omissions in the Catalogue :—

ISMENE.

Discolor (Feld.), (Gon. D.).—Wien. Ent. Mon. iii. p. 405, n. 50 (1859).

Common, Queensland.

Hurama (Butl.), (Hesp. H.).—Trans. Ent. Soc. p. 498 (1870).

Hab.—Cape York.

Chromus (Cram.), (Pap. Ch.).—Pap. Ex. iii. t. 284, E. (1782).

Hab.—Queensland. This insect has been determined by Mr. Hewitson.

PAMPHILA.

Augiades (Feld.).—Sitzb. Ak. Wiss. Math. Nat. Cl. xi. p. 461, n. 51 (1860).

Hab.—Queensland. Same authority.

Many more species have yet to be added to the list of Australian *Diurni*, several of which will doubtless prove new to science, and many species contained in Mr. Masters' Catalogue besides those I have mentioned will have to be erased, as our acquaintance with the Australian fauna progresses, many being unquestionably assigned as Australian without foundation, and many other of the names being synonyms or representing mere varieties or sexes.

The want of a work embracing not only a list of the described species, but the *descriptions* also, is severely felt by the Australian entomologist; the original descriptions, being distributed amongst a vast number of works and in a variety of languages, renders the process of determination a slow and wearisome task in a country where but few of these works are accessible. I trust, however, in course of time to see some such work on our insects as that of Mr. Trimen's on the South African Butterflies, a work that would prove an inestimable boon to entomologists here, and be the means of stimulating the prosecution of this delightful science in the Australian colonies.